BRUHATH BENGALURU MAHANAGARA PALIKE

MODIFIED ESTIMATE

Name of work: Modified Estimates for the work of Improvements to drains and Asphalting to Abbigere area and Shettyhalli area in ward no.12 Shettyhalli Sub Division (2 WorksP Package No: DZ/2017-18(01) (Improvements to Roads and Asphalting to Abbigere area Forest road & Shettyhalli area, Raghavendra Layout main road in ward no.12 Shettyhalli Sub Division

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
1	Removing B.S slab of drain and stacking (Page No 25., I.no.5.32 of KPWD S.R 2016-17).								
			BOQ QTY						
			UP TO 125% QTY						
			ABOVE 125% QTY						
2	KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143)								
	Forest road	2	1334.00	1.20	0.40	1280.64			
		2	1334.00	1.00	0.30	800.40			
	Ragavendra Layout Main Road								
		1	972.00	1.20	0.40	466.56			
		1	140.00	5.70	0.15	119.70			
						2667.30	**Cum**		
			BOQ QTY			**5362.56**	**Cum**		
			UP TO 125% QTY			**2667.30**	**Cum**	**97.32**	**259581.64**
			ABOVE 125% QTY			**-**			
3	KSRRB 300-58. Compaction of Original ground with maximum of 6 passes of 8 to 10 tonnes power roller inclunding filling in depression occuring during rolling including cost of all labour, HOM of machinary Complete as per specifitions Morth/ Chapter Page NO 149 Item.No.19.64 of KPWD S.R 2016-17								
	Forest road								
		2	1334.00	1.20		3201.60			
		2	1334.00	1.00		2668.00			
	Ragavendra Layout Main Road								
		2	972.00	1.20		2332.80			
		1	140.00	5.70		798.00			
						9000.40			
			BOQ QTY			**1052.90**	**Sqm**		
			UP TO 125% QTY			**1316.13**	**Sqm**	**5.93**	**7,804.62**
			ABOVE 125% QTY			**7684.28**	**Sqm**	**5.93**	**45,567.75**

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Construction of Sub Grade and earthen Shoulders with approved material Gravel/Murrum With all Lifts & Leads transporting to site, Spreading Grading to required slope and compacted to meet requirement of Table No.300.2 complete as per specifications (including cost of earth , watering Charges & Compaction by vibratory roller) MORTH Specification No.305 (Page no.148,1 no 19.62 of KPWD S.R 2016-17)								
			BOQ QTY						
			UP TO 125% QTY						
			ABOVE 125% QTY						
5	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	Forest road	2	1334.00	1.20	0.15	480.24			
		2	1334.00	1.00	0.15	400.20			
	Ragavendra Layout Main Road								
		2	972.00	1.20	0.15	349.92			
						1230.36	**Cum**		
			BOQ QTY			**1760.38**	**Cum**		
			UP TO 125% QTY			**1230.36**	**Cum**	**1731.66**	**2130565.20**
			ABOVE 125% QTY			-			
6	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Forest road	2	1334.00	1.20	0.23	736.37			
		2	1334.00	0.75	0.23	460.23			
	Ragavendra Layout Main Road								
		2	972.00	1.20	0.23	536.54			
		1	140.00	5.70	0.15	119.70			
						1852.84			
			BOQ QTY			**1408.30**	**Cum**		
			UP TO 125% QTY			**1760.38**	**Cum**	**1979.72**	**3485049.60**
			ABOVE 125% QTY			**92.47**	**Cum**	**1979.72**	**183058.77**

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	SRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WBM,WMM ,including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per Specifications. MORTH Specification No. 502 (page no.161., I.No.21.6 of KPWD S.R.2016-17)								
	Forest road	1	1442.00	11.00		15862.00			
	Ragavendra Layout Main Road								
		1	972	5.80		5637.60			
		1	140	5.70		798.00			
						22297.60			
			BOQ QTY			7041.50	Sqm		
			UP TO 125% QTY			8801.88	Sqm	30.86	271625.86
			ABOVE 125% QTY			13495.73	Sqm	30.86	416478.07
8	KSRRB 500-2. Cleaning the existing black topped surface with brooms and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5 (Page No.161., 21.2 of KPWD SR 2016-17)								
	Forest road	1	1334.00	11.00		14674.00			
	Ragavendra Layout Main Road								
		1	972.00	5.80		5637.60			
		1	140.00	5.70		798.00			
						21109.60			
			BOQ QTY			10222.80	Sqm		
			UP TO 125% QTY			12778.50	Sqm	3.56	45,491.46
			ABOVE 125% QTY			8331.10	Sqm	3.56	29,658.72
9	KSRRB 500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5 (Page No.161, Item No. 21.7 of KPWD S.R.2016-2017)								
	Forest road	1	1334.00	11.00		14674.00			
	Ragavendra Layout Main Road								
		1	972.00	5.80		5637.60			
		1	140.00	5.70		798.00			
						21109.60	Sqm		
			BOQ QTY			36634.40	Sqm		
			UP TO 125% QTY			21109.60	Sqm	13.06	275691.38
			ABOVE 125% QTY			-			

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	SRRB M500-11 : Providing and laying bituminous Macamdam on prepared surface with crushed coarse aggregates as design mix for base/binding course including loading of agregates with F.E loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity transporting the mixed material in tipper to paver and laying mixed materials paver finisher to the required level and grade, roo lling by power roller to achieve the desired density but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour HOM of machineries complete as per specifications using TPH capacity HMP with sensor paver Gr-II (50mm to 75mm) with 3.3% VG-30 Bitumen (Page No.162, Item No. 21.11.5 of KPWD S.R 2016-17)								
	Forest road	1	1334.00	11	0.05	733.70			
	Ragavendra Layout Main Road								
		1	972.00	5.8	0.05	281.88			
		1	140.00	5.7	0.05	39.90			
						1055.48			
			BOQ QTY			979.48	Cum		
			UP TO 125% QTY			1055.48	Cum	6210.95	6555533.51
			ABOVE 125% QTY			-			
11	KSRRB M500-19. Providing and laying **bituminous concrete** using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6)								
	Forest road	1	1334.00	11.00	0.04	586.96			
	Ragavendra Layout Main Road								
		1	972.00	5.80	0.03	169.13			
		1	140.00	5.70	0.03	23.94			
						780.03			
			BOQ QTY			732.68	Cum		
			UP TO 125% QTY			780.03	Cum	15283.48	11921542.34
			ABOVE 125% QTY			-			
12	Add Plastic to Bituminous Concrete 8% of Bitumen								
		1	780.03	0.08	141	8798.74			
						8798.74			
			BOQ QTY			8264.72	kgs		
			UP TO 125% QTY			8798.74	kgs	30.23	265985.86
			ABOVE 125% QTY			-			

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	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	SRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Forest road	2.5	1334.00	0.15		500.25			
	Ragavendra Layout Main Road								
		2.5	972.00	0.15		364.50			
		2.5	140.00	0.15		52.50			
		262	3.00	0.15		117.90			
						1035.15			
			BOQ QTY			**1225.81**	**Sqm**		
			UP TO 125% QTY			**1035.15**	**Sqm**	**607.68**	**629039.95**
			ABOVE 125% QTY						
14	KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, die-cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications(Page No 189., I.No.24.41 of KPWD S.R 2016-17)								
			BOQ QTY						
			UP TO 125% QTY						
			ABOVE 125% QTY						
15	Refixing B S Slab of Drains and Pointing in C.M (1:30 Page No.25., I.No.5.33 of KPWD S.R.2016-17)								
			BOQ QTY						
			UP TO 125% QTY						
			ABOVE 125% QTY						
16	Providing granite Slabs ofSelected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc.., Complete (Page No.25., I.No. 5.31 of KPWD S.R 2016-17)								
			BOQ QTY						
			UP TO 125% QTY						
			ABOVE 125% QTY						
17	Lead charges for conveying the excavated earth including loading and unloading upto 10kms as per directions (Page No.140 SL.No.5 of KPWD S.R 2016-17)								

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
					2667.30			
					2667.30	Cum		
		BOQ QTY			4830.00	Cum		
		UP TO 125% QTY			2667.30	Cum	118.69	316581.84
		ABOVE 125% QTY			-			
Extra Item								
18 Stone Dust - Grit 4.75mm to 0.075 mm KSRRB M100-1 Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kanker/Moorum Page No.II, Sl No.46 of KPWD SR 2016-17)								
Forest road	2	1000.00	1.20	0.15	360.00			
Ragavendra Layout Main Road								
	2	787.00	1.20	0.15	283.32			
					643.32	**Cum**	**1336.64**	**859888.45**
Basic Rate	1000.00							
Lead charges (2.5*2.63*10)=66	133.75							
6%sand wastage	60.00							
Total	1193.75							
Add 11.97%	142.89							
Grand Total	1336.64							
							Total Construction Cost	27699145.00
							Miscellaneous	6068.42
							GRAND TOTAL	27705213.42

3,76,99,193.65

Certificate

1. The workspot was inspected and works is found to be necessary
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits
3. The rates adopted based on the PWD SR, for year 2016-2017 in Tender, this estimates rate consider as Approved rates

Assistant Engineer
Ward No. 42
BBMP Bangalore

Asst. Executive Engineer,
Shettyhalli Sub Division
BBMP Bangalore

Executive Engineer,
Dasarahalli Division
BBMP Bangalore

Technically Sanctioned for Rs. 276.99 Lakhs

Rs. In words Two Hundred Seventy Six Lakhs Ninety Nine Thousand One Hundred Ninety Three Only

Under 8.0190

Job Code No. [illegible]

Registered as CT No. 02/2020-21 Subject to conditions contained in sanctioned Memo No. CE(D)/TS/07-1.2020-21 Dt: 07/01/2020

AEE. TA CE(D)

07/01/2020

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